THE SEED

AUG. 1986
Vol 8 No 8

NEWSLETTER FOR APPLE PEOPLE

DENVER APPLE PI

denver apple pi Seed

P.O. BOX 17467
DENVER, COLORADO 80217

President .....Roy Dean
Vice President & Property .....Trent Hein
Secretary & Editor .....Randall Ansley
Treasurer .....Bob Hein
Board Member & Software Librarian .....Ed Thompson
Board Member & Store Rep .....Tom Angelos
Board Member .....Bill Cronister
Sales Officer .....Chris Saxon
BBS Officer .....Robert Racansky

MEMBERSHIP INFORMATION

APPLE PI is an Apple Computer Users Group - not affiliated with Apple Computer, Inc. - that provides many member benefits, some of which are:

MONTHLY MEETINGS - On the first Thursday of each month at 7:00 p.m. APPLE PI holds its general meeting at the Green Center, Colorado School of Mines Campus, Golden, Colorado. This meeting is a combination of an informational meeting, new product announcements, and a short business meeting. The members are given an opportunity to buy computer supplies a little above cost. Software products are given away as door prizes.

On the Sunday following the general meeting there is an informal meet which is usually held at the Clear Creek Office Park, 4251 Kipling, in Wheat Ridge. This meeting is from 10:00 a.m. until 3:00 p.m. and provides a more informal environment to seek or give advice to fellow members and get copies of programs from the APPLE PI Library. Both of these meetings are open to the general public but only members have access to the club library and products that are sold.

PROGRAM LIBRARY - APPLE PI currently has a library of 9,000 programs. All current disks are in 16 sector (3.3, Pascal, CP/M) format and are available to any member. APPLE PI Members can obtain copies from the library:

1) By coming to the monthly informal meeting (swap meet);
2) By written request to the club librarian (at any meeting or by mail);
3) By electronic mail on APPLE PI's bulletin board system:

DISK OF THE MONTH - Each month a collection of some of the best programs donated to APPLE PI during the preceding month are made available. The DOM can be purchased at any group meeting or by mail.

DUES - Current membership dues are **$18.00** per year, with a one-time application fee of **$10.00.** Checks should be made payable to DENVER APPLE PI.

The words APPLE, APPLE COMPUTER, and the APPLE LOGO are registered trademarks of the Apple Computer Company Inc. Representation of these trademarks in the Seed does not constitute any expression of agreement or disagreement by Apple Computer Inc. with any articles or other printed material found in the Seed. The opinions, policies and comments contained in the Seed are those of the Apple Pi users group, officers and members.

NOTICE

Articles, stories, and other items in the Seed may be copied or used by other clubs or groups as long as credit is given to Denver Apple Pi and the author of the article. On reprints please include the date or volume number from the Seed.

ADVERTISING RATES

1/4 Page	$ 25.00
1/2 Page	$ 40.00
Full Page	$ 70.00

AppleWriter RAM

How to Use a RAM Drive With APPLE WRITER][2.0 (ProDOS) on a //e with Ramworks or an Extended 80 Col. Card

by John L. Kellogg

Appleworks has been getting most of the attention lately -- by Apple and independent developers. But many users have applications which do not require a data base or spreadsheet program. They find Apple Writer][(ProDOS) a superior word processor to the one in Appleworks (especially with glossary and WPL enhancements available from independents). For them, the ability to use a /ram drive with Apple Writer][may be desirable.

RAMWORKS

Ordinarily when Apple Writer][is booted on a //e it will utilize the auxiliary memory on an extended 80 col. card or the comparable 64 K (bank 0) on a RAMWORKS card for a text buffer. This will allow containing a document in memory which is a little more than twice as long as if neither card were installed. The additional auxiliary memory on RAMWORKS is not accessible. Listing volumes ([0]f) will only show the two volumes in drive 1 or drive 2.

It is possible, however, to change Applewriter so that the /ram drive is accessible. This is done by changing AWD.SYS. That is the program that runs the version of Apple Writer which makes use of an extended 80 col. card. Using a backup copy of your original master (/AW2MASTER) in drive 1 and after getting into basic.

```
PREFIX ,S6D1 (sometimes PREFIX
  ,S6,D1 is needed)
UNLOCK AWD.SYS
BLOAD AWD.SYS,TSYS,A$2000
POKE 8484, 243
POKE 8486, 179
BSAVE AWD.SYS, TSYS, A$2000
LOCK AWD.SYS
```

That's it. Listing volumes will now show three items, Slot 3 Drive 2/ram as well as the volumes in drives 1 and 2. If things don't seem to work correctly, you may have to add the file length, L16384. Try the procedure again with BLOAD/BSAVE AWD.SYS,A$2000, L16384, TSYS. You might catalog your copy of the master to see that the length of AWD.SYS is 16384. The length is critical if you renamed AWC.SYS as AWD.SYS as described in the next section for userrs of an extended 80 column card. The length of AWC.SYS is only 16000.

To startup, boot the RAMDRIVE disk and install the /ram dtrive (option 1). Exit to Basic.

To run Apple Writer:

```
PREFIX /AW2MASTER (unless you
     have renamed your backup
     copy)

-AWD.SYS
```

You will now see a full 46845 K of memory on the command line and be able to access the /ram drive. [Cntrl-O]h,s3,d2 is a handy macro to install in your glossary to select /ram as a prefeix.

A preboot disk (/PREBOOT might be a good choice for the volume name) is handy because it can be set up to automatically run PRODRIVE. The first two programs on the disk should be PRODOS and BASIC.SYSTEM (from your /USERS.DISK). Then transfer PROFILE and rename it STARTUP. STARTUP will automatically be run by BASIC.SYSTEM. When this preboot is run, first it will show the ProDOS screen; then it will show "INSTALLING xxx K RAMDRIVE". The number of K will be 64 less than your RAMWORKS capacity.

If you have Apple Writer in drive 2, a simple 2-line basic program can be run next to load Apple Writer.

```
10  PREFIX /AW2MASTER
20  -AWD.SYS
```

Save this program to your preboot disk under the name AW. Then when your preboot disk has expanded /ram and stopped with the basic cursor showing, you only have to enter "-AW" to load Apple Writer.

The preboot disk can also contain other files or application programs you want to transfer to /ram, such as the new Sensible Speller program. While FILER from the USERS.DISK master can do this, Beagle Bros. FILE.MOVER is a far superior program. It is menu-driven. Files are transferred fromm a disk catalog with arrow keys. Typos are eliminated.

Extended 80- col. card (only)

If you can work with parts of documents that are from ten to fifteen double-spaced pages in length (rather than twenty to thirty) or if your documents are not that long, you may find it convenient to utilize the /ram drive that ProDOS initially creates in auxiliary memory (until Apple Writer][appropriates it to reserve auxiliary memory to expand its text buffer).

To set up the /ram drive, it is necessary to fool Apple Writer][into thinking that there is no auxiliary memory. This can be accomplished by copying the Apple Writer disk (/AW2MASTER), deleting AWD.SYS and AWB.SYS, and changing the name of the file AWC.SYS to AWD.SYS. The first file to run after PRODOS when Apple Writer][is booted is AW.SYSTEM. This determines whether you have a //c or a //e and whether the //e has an extended 80 col. card or not. AW.SYSTEM will dettermine that you are using a //e with the card and call for AWD.SYS to be run next. With AWC.SYS renamed as AWD.SYS, the version of Apple Writer][for an Apple //e with only 64 K will be run. This will allow the /ram disk created by PRODOS to remain accessible. This trick was called to my attention by the developers of Macrodisk, a handy non-patch Apple Writer][enhancement, replete with WPL utilities and convenient and powerful glossary commands.

TREASURER'S REPORT

ENDING CASH BALANCE 5/31/86	$2765.94
INCOME	
New Members	112.00
Renewal Members	152.00
DOM Sales	165.00
Library Copies	46.00
Sales of Supplies	531.55
Store Memberships	0.00
Interest Earned	13.59
TOTAL INCOME	**$1020.14**
EXPENSES	
Supplies for Resale	0.00
Hot Line	0.00
CSM Room Rental	0.00
Printing Costs	0.00
Postage	0.00
Supplies and Copies	7.64
BBS Expense	0.00
State Sales Tax	80.42
Equipment Purchase (Print wheels, plaque frames)	63.98
Equipment Rental	0.00
P.O. Box rental	0.00
TOTAL EXPENSES	**$152.04**
ENDING CASH BALANCE 6/01/86	**$3634.04**
ASSETS 6/01/86	
Cash on Hand	25.00
Cash in Bank	3634.04
Inventory for Resale	1023.48
Prepaid Expenses	214.40
Accounts Receivable	38.00
Equipment (Replacement Cost)	10,850.00
Total Assets	**$15,784.92**
LIABILITIES	
Sales Tax Accrued	102.20
Accounts Payable (CSM Room Rental)	1080.00
Total Liabilities	**$1182.20**
NET WORTH OF CLUB	**$14602.72**

PRESIDENT'S REPORT

I would first like to thank those of you that attended the July Meeting. I expected most people to be out of town for the 4th, but there was a very good showing of members. We have fixed the RF modulator problem, thank you for bearing with us during the DOM demonstration. I also felt that there was a lot of useful information exchanged during the 'open forum'. There will continue to be a short time during the meeting when people can exchange news, ideas, advise, help, and questions. With all the new software, support programs, and peripherals available for Apple computers (whether it be //e, //c, MacIntosh, or whatever), there is no way that any individual can be an expert on all aspects. There are many different people in Apple Pi, each with their own expertise. We can all help each other by sharing our knowledge. If you can help another person with a particular problem, please volunteer to help them over the hurdle.

For those of you that may think the reason you did not receive a May or a June SEED is that your membership lapsed, that may not be the case. Simply, the May and June issues of the SEED were never printed. We have been in need of an editor for a very long time. Randall Ansley has done a superb job 'filling in' as editor for over a year now. As many of you know, Randy has also been President and Secretary during those same times. Since all of the officers have other full-time jobs that put bread on the table, an over load of duties can cause problems. If the choice is between work and Apple Pi, being able to support yourself takes the priority. It is not one person's fault the SEED was not printed. Being president, I take the responsibility and have taken measures to help correct the problems. There are also ways that you could help. The simplest way is to write an article for the SEED. It does not have to be a technical journal. It can be experiences with a particular peripheral, review of a piece of software, a hint for new user's, an application for your field of work, or any insight you may have that will benefit other club members. Send a copy, or better yet a DOS 3.3 Text file, to the Apple Pi P.O. Box addressed to the Editor. Remember the SEED needs to be put together by the 15th of the month to be printed and distributed in time. If your article misses deadline, then it will be printed the following edition. The other way you could help is to be the SEED editor. You do not have to know how to paste up, layout, or print a newsletter. You need to know how to check for spelling and grammar errors, decide what information is to be included in each issue, and make sure there is enough quality material to produce a professional newsletter. You don't need to do any of he writing yourself, unless you want to. Contact any Apple Pi Officer, and give them your name and phone number in writing (or E-mail) if you are interested in editing the SEED.

In the Seed there will be new section for members called CLUB CLASSIFIED. If you are a member and have a particular computer item that you wish to buy, sell, or trade, you can have it published in the SEED. This would give members the opportunity to use the SEED. If you would like to use the service, just write it down and mail it to the Apple Pi P.O. Box c/o CLUB CLASSIFIED. You may also leave the information on the Apple Pi Hotline. Please limit your items to 4 lines of 40 character text and no commercial sales. Items will be published on a space available basis.

And on a final note, things are back to normal with the meetings. The General meeting will be August 7th at the Colorado School of Mines and the Core meeting will be on August 10th at Clear Creek Office Park (KKBNA). Hope to see you at the meetings. Thank you for your continued support.

Roy Dean

HEARD ON THE STREET

Several new product announcements this month by third party venders offer interesting options to Apple users. The most exciting is from Impossibilities in Wichita, Kansas at 316-683-7419. They have developed an upgrade to an enhanced IIe for Apple II's, Apple II+'s, Franklins, and Basis 108's for a total cost of $399. You ship your bare CPU to them and they replace the motherboard with an enhanced IIe compatible board using actual IIe enhancement kits to avoid copyright infringement. They pay return postage and you have an enhanced IIe! If you include your 80 column and 16 K cards, then they return your machine with an Apple compatible extended 80 column card at no extra cost. Sounds like something Apple should have offered about 2 years ago. Read more about it on page 51 of Call Apple in the July, 1986 issue.

Almost as exciting is Central Point Software's latest hardware offering and I don't mean the Laser 128. They now offer an 800 K 3.5 inch IIe and Mac compatible drive for $195. For $285 you also get a universal disk drive controller which handles 3.5 inch and 5.25 inch drives on a single card. For $475 you get two 3.5 inch drives and the universal controller. The last we checked, Apple's price for one drive and non-universal controller was about $568.

The third product is in software and is actually several months old. VIP Technologies is now directly selling the VIP Professional which they once sold through Checkmate. The product is a Lotus 123 version 1A clone for the Apple with an expanded memory card and 16 bit chip. Currently either the Applied Engineering or Checkmate cards are compatible and a minimum of 256 K memory is required. VIP claims to offer total compatibility with the Lotus 123 1A to include uploading and downloading spreadsheets between the two machines. In addition, VIP uses the Mac style pull down menus, dialogue boxes, icons, scroll bars, etc. The spreadsheet size is 256 columns by 8192 rows and can utilize 4 megabytes of memory. Look for this product top be a prominent part of the 16 bit Apple II environment.

Since this has been all new products we might as well mention the latest entry in low cost hard drives. ProApp at phone 800-424-2425 in Irvine, California now offers a 10 meg drive for IIe or Mac for $795 and a 20 meg for $995. Included with are a SCSI port for Mac+ interface, a floppy interface for Mac 128/512, IIe, and IIc, and an Imagewriter compatible printer/spooler interface. Software support includes ProDOS, Dos 3.3, and Pascal 1.3. There does not appear to be a provision for tape backup.

By the way, one the older players in inexpensive Apple hard drives, CMC Hard Disk Systems at phone 714-835-2462 in Santa Ana, California has recently reduced prices. Their 20 meg drive is now $795 but software and an extended warranty add another $200.

If you have a Lisa and want to take advantage of the Apple trade in offer for a Mac+ and 20 meg hard drive, you should know the offer expires August 29, 1986. Along with your Lisa/Mac XL, you need $1498 which means you buy the hard drive and exchange the machines even across the board. If you wish to keep the Lisa/Mac XL, Apple promises to service and support your hardware and software for 5 years from the trade expiration date.

From the business desk, the latest available personal computer sales data shows Apple leading all companies in unit sales with 33% of the market. That breaks down to 14% for the Mac series, 10% for the IIe, and 9% for the IIc. If Apple ever unveils the new 16 bit IIe, sales of the II line are expected to pick up. In printer dollar sales, Apple has 29% to Epson's 27% while IBM trails at 8%. Do not, however, look for your Apple at a Sears Business Center. They recently dropped or were dropped by Apple.

For Mac users, Andy Hertzfeld is finishing a new program called Servant that is an alternative to the Finder. It has many more features but loads twice as fast as the current HFS. Apple is reportedly not interested so look for Servant to be marketed by a third party source.

For IIe and IIc users, rumors are strong that Rupert Lissner is about done with the pull down window version of Appleworks. Again, Apple may not market the program and a firm such as International Solutions of Mouseword fame may be the vendor.

The Engineering Department in Sunnyvale, California, has completed their 80286 co-processor board for the IIe. Dubbed the "little blue", the board has not been warmly received. Besides the board, the owner must have IBM disk drives. Since IBM software tends to cost twice as much as Apple software, and since much IBM type software is already available in the Apple environment, the co-processor board has not found a ready market. Eventually it may find its way into the home IIe's of business IBM users who "bring" home the software and/or schools which would then have a token entry into the IBM environment. The Engineering Department is hoping that Apple will adopt the card as a strategic product in defense of the school market and perhaps in pursuit of the business market.

Finally, a note about mice based word processors. Nibble magazine in July reviewed Mouseword, Mousewrite, and Multiscribe. Overall, they found Multiscribe to be excellent, Mousewrite to be very good and Mouseword to be only fair. That is particularly interesting because it is in the inverse order of price. Multiscribe lists for $59.95, Mousewrite for $124.95, and Mouseword for $129.95. We have tried only Multiscribe and heartily recommend it. Of the three, it alone offers true MacWrite multiple font features both on screen and on the printed page. It was further rated the easiest to learn and to use, works well with or without a mouse, does not require an enhanced machine, but does require a 128 K machine.

If you want a copy of ProDOS Applewriter but don't have the $175.00, try FrEdWriter from the Pi Store for $2.00. It's by the same author as enhanced by others, has almost identical features, and is absolutely public domain. It is a world class word processor, designed to catalog Pascal formated disks from the whatever that is, and should be especially great for schools. It runs on II+'s, IIe's, or IIc's, with 40 or 80 columns, enhanced or not, and with 64 or 128 K.

Until next month or the news seems worth it,

The Apple Sleuth

II+ NOTICE

Apple][and Apple][+ users who would like to get together with others in Apple Pi who use these older members of the Apple II family may contact Robert McPhee at Apple Pi meetings. Robert would like to get a subgroup started for people interested in Applesoft BASIC, assembler, and other][and][+ specific software. If you can help, or would just like to be a part of such a group, see Mr. McPhee or ask any officer.

BBS PHONE NUMBER

422 - 3716

HOT LINE

422 - 0005

LIBRARIAN'S REPORT

As the July general meeting was held Thursday July 3rd before the long holiday weekend, only an abreviated meeting was conducted. Also, we did not hold our regular core meet on the Sunday following. DOM sales were about 20 and no library copies were made.

If you missed the July DOM, it included 6 games ranging from NFL Football to Galactic Empires. On the back was an expert system implementation of Monopoly called Concierge written by Jorg Phenix, a member of Denver Apple Pi.

The August DOM continues the summer theme of fun with six more excellent games. Star Strike is a hi-res arcade created with Broderbund's Arcade Construction Kit. As usual, it has excellent sound, color, graphics, and multiple game levels. Ball Blaster is a hi-res pinball game built with the Pinball Constructon Kit. Ultra Block is a single player hi-res ping pong game similar to Breakout. Deka Vader is an alien shooting gallery game. Grand Prix is a text road rally strategy game, and Reactor is a nuclear power plant simulation game in hi-res.

On the back side of the DOM is The Assembler Disk from Denver Apple Pi. The primary feature is the MASM assembler by Scott T. Jones. MASM will run on a 48K II+, IIe, or IIc and will enter assembly language source code, save it, and assemble it. The resulting machine code must then be BSAVED to disk. The program offers 12 direct commands, 8 pseudo-ops, but no macro support. It includes line oriented editing using Integer Basic and source loads, edits, and saves as integer data. The program will also disassemble to source code.

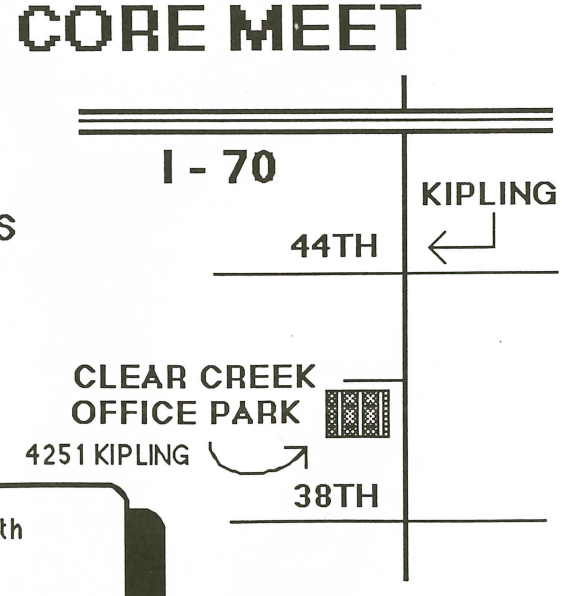
With MASM on The Assembler Disk is the Binary Entry Utility which is a word processor for hexadecimal code in case you prefer to enter your machine code that way. It also has a utility to relocate a binary source code. Finally, the disk contains a mini assembler tutorial, a stand alone disassembler, a disk zap program, two 6502 tutorial programs and other utilities of use to assembly programmers.

The list of disks added to the library continues to grow and we will try to have summarize those in the next report. There will be a core meet this month! See you at the general meeting on August 7.

Ed Thompson, Librarian

GENERAL MEETING

CORE MEET



GENERAL MEETING 7:00 PM first Thursday of each month

CORE MEET 10:00 to 3:00 Sunday after General Meeting

Apple // Technical Notes

Mouse Technical Note #1
Interrupt Environment with the Mouse

Written: 3/84
Verified by: Rilla Reynolds 11/85

Software developers who are writting mouse based programs in machine language need to be concerned about the computer's interrupt environment even if they are using the mouse in passive mode. Listed below are several conditions which a machine language programmer should take into account if their programs are to run on the Apple // family of computers.

* Do not disable interrupts unless you must. Then be sure to re-enable them.

* Disable interrupts when calling any mouse routine (SEI).

* Do not re-enable interrupts (CLI) or (PLP if previously had done a PHP) after READMOUSE until X & Y data have been removed from the screen holes.

* Be sure to disable interrupts (SEI) before placing position information in the screen holes (POSMOUSE or CLAMPMOUSE).

* Enter all mouse routines (not required for SERVEMOUSE) with the X register set to $Cn and Y register set to $n0 where n = slot number.

* Some programs may need to turn off interrupts for purposes other then reading the mouse. This is sometimes done on the Apple //e to keep from having to handle interrupts while in auxiliary memory. If interrupts are turned off and then back on, the first call to READMOUSE may give incorrect values. Subsequent calls to READMOUSE will return correct values until interrupts are turned off and on again. Turning off interrupts for mouse calls does not create this problem. If you are watching numbers coming from the mouse while moving it in a direction that would increase values you might see the following: 6, 7, 8, 9, 8, 9, 10. In practice this momentary 'glitch' in the stream of mouse data has little importance and would probably only be noticed by a programmer testing his/her program- no one's hand is that steady. If you must keep this 'glitch' from happening then do not keep interrupts off for more then 40 microseconds or be sure that at least one mouse interrupt has taken place since interrupts were turned back on.

Apple // Technical Notes

Mouse Technical Note #2
How to Vary the "VBL" Interrupts Between 50 Hz or 60Hz

Written: 3/84
Verified by: Rilla Reynolds 11/85

This technical note documents a previously undocumented call to the AppleMouse II firmware which allows the user to set the interrupt rate to 50 Hz or 60 Hz. (60 Hz is the default, and keeps the mousecard-generated "VBL" interrupts synchronized with the actual VBL rate on a standard North American Apple. 50 Hz is necessary for European machines. "60 Hz" and "50 Hz", as used here are actually shorthand for the Apple video cycle rates used in North America and Europe, respectively).

Call: TIMEDATA

Offset Location: $Cn1C

Input: Accumulator bit 0 = 0 for 60 Hz

= 1 for 50 Hz

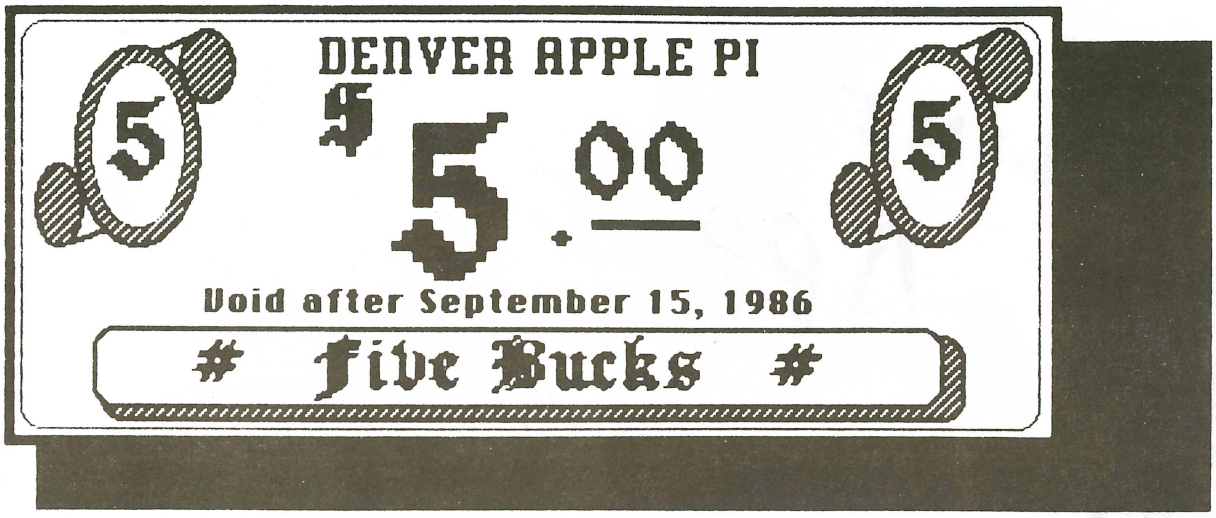
Note: All other accumulator bits are reserved, and MUST be set to 0.

Output: carry bit clear
screenholes unchanged.

This call must be made before INITMOUSE, and then followed by an INITMOUSE call in order to be effective. If you want to change the interrupt rate in the middle of an application, you must call TIMEDATA, with the appropriate value in the accumulator, and then INITMOUSE (until the INITMOUSE is called, no interrupts will be generated). INITMOUSE will, of course, reset the mouse position, mode, clamps, etc., back to their default values.

If TIMEDATA is never called, then the interrupt rate will default to 60 Hz when INITMOUSE is called.

NOTE: This call exists only on the Mousecard for the //e or][+ and should only be used when you know you are working with a //e or][+.



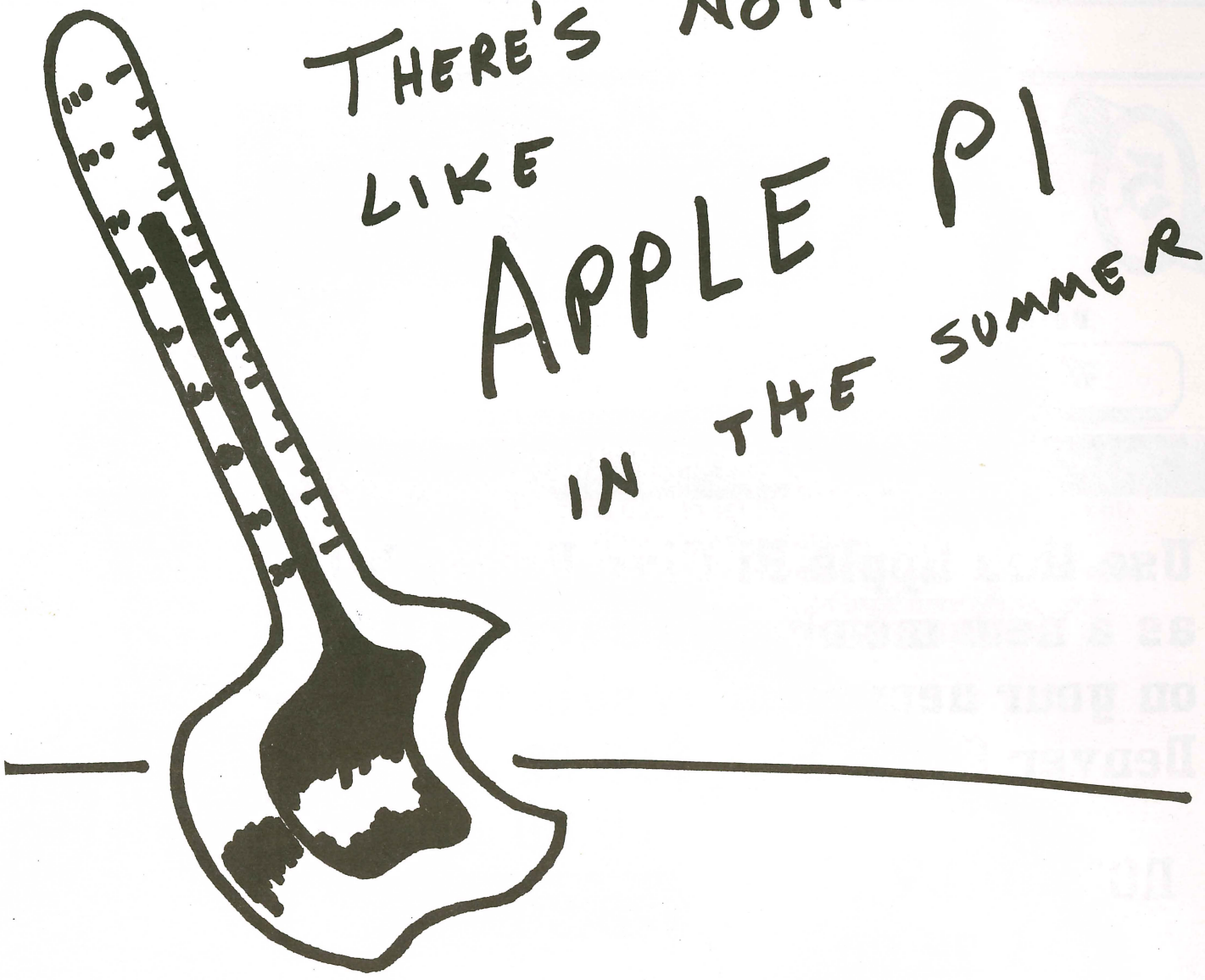
Use this Apple Pi Five Dollar bill as a new member to save $5.00 on your new membership to Denver Apple Pi.

$18.00 dues
10.00 application
$28.00

NOW ONLY $ 23.00

If you are a member now send in this five bucks and a ckech for only $13.00 and your Apple Pi membership will be extended one full gear !!!!

MUST BE IN BY Sept. 15th



THE SEED

denver apple pi

P.O. Box 17467
Denver, CO 80217

BULK RATE
U.S. POSTAGE
PAID
DENVER, CO
PERMIT- 3182